

## REMARKS

Applicants hereby add new claim 47 which is supported by the teachings of Fig. 1 and the associated teachings of the specification.

Claims 1-46 stand rejected under 35 USC 112, first paragraph. Claims 1-46 stand rejected under 35 USC 112, second paragraph, for indefiniteness. Claims 1-46 stand rejected under 35 USC 102(b) for anticipation by U.S. Patent No. 6,442,706 to Wahl et al.

Applicants respectfully request reconsideration of the rejections.

Referring to the written description rejection of claims 1-46, Applicants respectfully request reconsideration of the rejection. The Office on page 4 of the Action alleges that claims 1-46 fail to comply with the written description requirement. In particular, the Office at page 4 of the Action alleges that "client protected computer systems" has not been adequately defined. As an initial note, Applicants respectfully submit that the language now identified by the Office as being not adequately described has been previously examined twice with no 112 rejection been presented. Applicants respectfully submit that the multiple prior examinations (including a final previous rejection) in which the above-identified language was considered to be adequately described is compelling evidence that the language is indeed in compliance with 112 and the 112, first paragraph rejection is in error.

Nonetheless, and without admitting to the propriety of the 112, first paragraph rejection, Applicants have herein deleted "client" from "client protected computer system" recited in the claims in an effort to further the prosecution of the present application.

Further regarding the rejection based on 112, first paragraph, the MPEP states the test for sufficiency of support in an application is whether the disclosure relied upon reasonably conveys to the artisan that the inventor had possession of the claimed subject matter. MPEP §2163.02 (8th ed., rev. 6) citing *Ralston Purina Co. v. Far-Mar-Co., Inc.*, 772 F.2d 1570, 1575, 227 USPQ 177, 179 (Fed. Cir. 1985). Notably, the subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement. MPEP §2163.02 (8th ed., rev. 6).

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The Office at page 4 of the Action baldly alleges that the above-recited limitations are "only repeated in the specification and drawings without being defined." Respectfully, Applicants refer the Office to paragraph 0021 of the original specification which clearly states that computer systems 14 are configured to generate electronic data to be stored for subsequent retrieval and access. Exemplary protected computer systems 14 may comprise personal computers, work stations, servers, combinations of such devices, and/or other electrical devices capable of providing or accessing electronic data. In one embodiment, computer systems 14 comprise respective electronic file systems or groups of electronic file systems. Applicants refer to paragraph 0003 of the specification which describes the importance of protection against loss of data.

The Office has provided no evidence in support of the allegations that the specification discusses protecting data as being separate and distinct from the protected systems. To the contrary, Applicants refer to paragraph 0022 of the specification which provides that the data management system 16 is configured to store (protect) electronic data of protected computer systems 14. Data management system 16 may operate to perform exemplary operations, such as backup and restore, with respect to electronic data of protected computer systems 14.

Applicants submit that the claim terminology of a protected computer system is adequately described in the specification and the artisan would reasonably consider the claim terminology to be possessed by the inventor at the time the application was filed.

The MPEP 2156 A. I. (8<sup>th</sup> ed., rev. 6) provides with respect to original claims that there is a strong presumption that an adequate written description of the claimed invention is present when the application is filed. *In re Wertheim*, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976). Applicant notes that the claim terminology identified by the Office has been pending since the filing of the original application and accordingly there is a strong presumption that adequate written description is present.

Applicants respectfully request withdrawal of the 112, first paragraph, rejection for the above-mentioned reasons.

Referring to the 112, second paragraph rejection, and without admitting to

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the propriety of the rejection, Applicants have amended the claims to delete "client" from "client protected computer systems." Applicants also note that the language rejected by the Office has been examined two previous times and considered to be definite and such is compelling evidence that the claims are definite.

35 U.S.C. §112, second paragraph, requires that the claims particularly point out and distinctly claim the subject matter that *the patent applicant regards as their invention*. "Distinctly" has been interpreted to mean simply that the claim must have a clear and definite meaning when construed in the light of the complete patent document. *Standard Oil Company v. American Cyanamid Company*, 774 F.2d 448, 227 USPQ 293 (Fed. Cir. 1985). Further, the definiteness of the claim language employed must not be analyzed in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one of having ordinary skill in the pertinent art.

Applicant refers to MPEP §2173.02 (8th ed., rev. 6) which states the essential inquiry pertaining to a §112, second paragraph requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) the content of the particular application disclosure;
- (B) the teachings of the prior art; and
- (C) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

In reviewing a claim for compliance with 35 U.S.C. §112, second paragraph, the Examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. §112, second paragraph by providing clear warning to others as to what constitutes infringement of the patent. MPEP §2173.02 (8th ed., rev. 6). A fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers and they can define in the claims what they regard as their invention essentially in whatever terms they choose. MPEP §2173.01 (8th ed., rev. 6).

Applicant submits that the claims are clear and definite on their face.

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Moreover, one of ordinary skill in the art with the opportunity to consider and review the contents of the application disclosure including paragraphs 0021 and 0022 pursuant to the above authority would clearly understand the language of the claims. Applicants respectfully request withdrawal of the 112, indefiniteness rejections for at least the above-mentioned compelling reasons.

Referring to the objection to the disclosure, Applicants have deleted the Summary of The Invention section. Applicants respectfully request withdrawal of the objection to the disclosure in the next Action.

Referring to the objection to the title, Applicant respectfully submits that the present title corresponds exactly to preambles of the pending claims and accordingly is highly indicative of the invention to which the claims are directed. In addition, Applicant respectfully submits that the title is accurate and in compliance with the CFR. In particular, 37 CFR 1.72 states *that the title must be short as possible*. Applicants respectfully submit that the title complies with the requirements of the CFR. In particular, the title corresponds to preambles of pending claims of the present application. Accordingly, the title is both specific to subject matter of claims of the application and is also brief. Applicants respectfully assert that the present title is sufficient for indexing, classification and searching. Applicants respectfully request approval of the title as submitted as corresponding to subject matter of claims of the application, and accordingly, is specific and descriptive of subject matter of the application while also complying with the brevity requirement of the CFR. Accordingly, Applicant respectfully requests reconsideration of the objection to the title for the above-mentioned compelling reasons.

Referring to the 102 rejection of claim 1 over Wahl, recites *a data storage system configured to store data of a plurality of protected computer systems*. At page 3 of the Office Action, the Examiner relies upon the teachings of col. 24, lines 5-24 of Wahl. These teachings refer to a primary computer system 12 and a secondary computer system 14. Referring to col. 6, lines 35+ of Wahl, the primary computer system 12 is disclosed as a storage device which "provides primary application and data storage services to a user" and is not a protected computer system. Furthermore, the secondary computer system 12 is also disclosed as a storage device which "stores a copy of the data from the primary

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computer system 14" per col. 6, lines 42+ and is not a protected computer system. The teachings relied upon by the Office in support of the rejection refer to components of the data mirroring system 10 and fail to teach or suggest that the data storage system is configured to store data of a plurality of protected computer systems as claimed.

Applicants respectfully submit that the above positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection of the claims is improper for at least this reason.

Independent claim 1 further recites the *data storage system comprises a plurality of storage devices and a quantity of data of the protected computer systems to be stored exceeds capacities of individual ones of the storage devices*. The Office relies upon teachings in col. 24, lines 5-24 and col. 3, lines 24-37 of Wahl. However, the teachings in col. 24 generally describe the primary and secondary storage systems 12, 14 but Applicants have failed to uncover any teachings therein of the claimed limitations that the *quantity of data of the computer systems to be stored exceeds capacities of individual ones of the storage devices*. The teachings in col. 3, lines 24-37 are generic teachings merely included in the Summary of Wahl and refer to the writelog device and Applicants submit that the Wahl teachings of writing of data from a cache of the writelog device of the primary system 12 to a dirty bit map disk drive device of the writelog device to avoid memory overflow fails to refer to the computer systems having data to be stored and fails to teach the limitations that the *quantity of data of the computer systems to be stored exceeds capacities of individual ones of the storage devices*. The writelog device of Wahl is part of the *primary computer system 18* per col. 6, lines 59+ and fails to teach that the quantity of data of the protected computer systems *exceeds capacities of individual ones of the storage devices of the data storage system*. Furthermore, the writelog device *journals time-sequenced writes* to the local data device 16 and accordingly Wahl teaches storage of data of the primary computer system 12 using the local data devices.

Applicants respectfully submit that the above positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection of the claims is improper for at least this reason.

Claim 1 further recites *storage control circuitry configured to assign*

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individual ones of the individual storage devices to store data for respective ones of the protected computer systems. The Office relies upon teachings in col. 5, lines 32 – col. 6, line 27 and col. 24, lines 5-24 of Wahl. However, the teachings in cols. 5 and 6 are generic teachings which generally describe aspects of the data mirroring system of Wahl and Applicants have failed to uncover any teachings therein of the claimed limitations reciting *storage control circuitry configured to assign individual ones of the individual storage devices to store data for respective ones of the protected computer systems.* Furthermore, the teachings in col. 24 generally describe the primary and secondary storage systems 12, 14 but Applicants have failed to uncover any teachings therein of the claimed limitations reciting *storage control circuitry configured to assign individual ones of the individual storage devices to store data for respective ones of the protected computer systems.* At page 13 of the Office Action, the Office generally refers to the Summary of the Invention section of Wahl. Applicants have failed to uncover any teachings in the Summary of the Invention section of the claimed limitations reciting *storage control circuitry configured to assign individual ones of the individual storage devices to store data for respective ones of the protected computer systems.* Applicants respectfully submit that the failure of the Office to identify specific reference teachings in the Summary of Wahl in support of the rejection illustrates the deficiencies of Wahl with respect to the specific claim limitations.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

The claims which depend from independent claim 1 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to independent claim 16, the claims recites a *data management system comprising plural means for storing electronic data*, means for communicating data intermediate the plural means for storing and a plurality of protected computer systems, wherein a quantity of data of the protected computer systems exceeds individual data storage capacities of individual ones of the means for storing.

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The Office relies upon teachings of the Summary of the Invention section including col. 3 of Wahl in support of the rejection and as teaching the above-identified limitations. In particular, the teachings at col. 3, lines 24+ of Wahl refer to a writelog device and for assigning additional memory space to prevent memory overflow conditions for journaling of time-sequenced writes to the local data device 16. Applicants have failed to uncover any teachings in col. 3, lines 24+ of quantities of data of the computers systems and the individual data storage capacities of individual ones of the means for storing. Applicants have failed to uncover any teachings that the quantity of data of the protected computer systems exceeds individual data storage capacities of individual ones of the means for storing. Furthermore, the teachings at col. 3, lines 38+ of Wahl disclose volume grouping, or logical groups and Applicants have failed to uncover any teachings in col. 3, lines 38+ of quantities of data of the protected computers systems and the individual data storage capacities of individual ones of the means for storing. Applicants have failed to uncover any teachings that the quantity of data of the protected computer systems exceeds individual data storage capacities of individual ones of the means for storing.

Applicants respectfully submit that the above-mentioned positively recited limitations of the claims are not disclosed in Wahl and the 102 rejection is improper for at least this reason.

Claim 16 also recites *means for assigning individual ones of the means for storing to store data for respective ones of the protected computer systems*.

The Office again relies upon the Summary of Invention section at col. 3, lines 24-54 of Wahl in support of the rejection. The teachings at col. 3, lines 24+ of Wahl teach dynamically assigning more memory space to prevent a memory overflow condition for the device which journals time-sequenced writes per col. 6, lines 59+. Applicants submit that the *dynamic assignment of more memory space of the writelog device fails to teach or refer to protected computer systems or the claimed limitations of the means for assigning individual ones of the means for storing to store data for respective ones of the protected computer systems*.

Furthermore, Applicants have failed to uncover any teachings in the generic teachings of col. 3, lines 38+ of Wahl with respect to the claimed *protected computer systems*. The generic teachings with respect to volume grouping or

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logical groups are void of disclosing the positively claimed *means for assigning individual ones of the means for storing to store data for respective ones of the protected computer systems* as claimed.

Applicants respectfully submit that the above-mentioned positively recited limitations of the claims are not disclosed in Wahl and the 102 rejection is improper for at least this reason.

The claims which depend from independent claim 16 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to independent claim 21, the claim recites a *processor-usable medium comprising code configured to cause processing circuitry of storage control circuitry to associate individual ones of the protected computer systems with respective ones of a plurality of storage devices*.

The Office relies upon the teachings of col. 23, line 61 – col. 24, line 29 of Wahl in support of the rejection and as allegedly teaching the claimed association. Applicants respectfully submit the teachings in Wahl fail to teach the claimed limitations. In particular, the “server fail-over computer system” of col. 23 has not been demonstrated to teach or suggest any association let alone the claimed limitations regarding *association of individual ones of the protected computers systems with respective ones of the storage devices*. The teachings in col. 24 of Wahl refer to generic features and Applicants have failed to uncover any reference to protected computer systems therein or the claimed limitations of *association of individual ones of the protected computer systems with respective ones of the storage devices* as claimed.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

Claim 21 recites *monitoring capacities of the storage devices*. The Office relies upon the teachings in cols. 5-6 of Wahl in support of the rejection. The teachings in col. 5, lines 57 – col. 6, line 27 of Wahl generically refer to a configuration of the mirroring system and Applicants have failed to uncover any reference to “capacity” therein or the claimed limitations of monitoring capacities of the storage devices. The teachings relied upon in col. 6 of Wahl at lines 28 +

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generally discuss primary and secondary computer systems 12, 14 but Applicants have failed to uncover any reference to capacity therein let alone the claimed limitations of monitoring capacities of the storage devices. Applicants have electronically searched Wahl and have failed to uncover any teaching to "capacity" let alone the claimed limitations of monitoring capacities of the storage devices as claimed.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

Claim 21 additionally recites *receiving a request to add a new protected computer system* and *assigning the new protected computer to one of the storage devices responsive to the monitoring of the capacities*. The Office refers to the teachings of col. 5, lines 57 to col. 6, line 58 of Wahl. Applicants have failed to uncover any teachings in such portion of Wahl with respect to *assignment of a new protected computer system*. Applicants have additionally failed to locate any teachings of *assignment of the new protected computer system to one of the storage devices*. Applicants have additionally failed to locate any teachings of *assignment responsive to monitoring* as claimed.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

The claims which depend from independent claim 21 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Independent claim 24 recites a data storage method comprising *monitoring capacities of individual ones of the storage devices* and *associating one of the protected computer systems with one of the storage devices responsive to the monitoring*. The Office relies upon the teachings of col. 15, lines 1-29 of Wahl in support of the rejection and as teaching the monitoring and the associating. Applicants have failed to uncover any teaching or reference to a *protected computer system* in col. 15. In addition, Applicants have failed to uncover any teaching in col. 15 of Wahl of the claimed limitations of *associating one of the protected computer systems with one of the storage devices responsive to monitoring capacities of individual ones of the storage devices* as positively claimed.

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Applicants respectfully submit that the above-mentioned positively recited limitations of the claims are not disclosed in Wahl and the 102 rejection is improper for at least this reason.

Claim 24 further recites *implementing storage operations of the data for the associated one of the protected computer systems using the associated one of the storage devices in accordance with the associating* in combination with the monitoring of capacities and associating responsive to the monitoring limitations discussed above. The Office relies upon the teachings of col. 24, lines 5-24 of Wahl as teaching the implementing. However, Applicants respectfully submit that the teachings relied upon by the Office generically refer to providing continuous network data mirroring and data replication and recovery from failures but Applicants have failed to uncover any teachings of the claimed limitations of implementing storage operations for an *associated one* of the protected computer systems *using the associated one of the storage devices* in combination with the other positively claimed limitations.

Applicants respectfully submit that the above-mentioned positively recited limitations of the claims are not disclosed in Wahl and the 102 rejection is improper for at least this reason.

The claims which depend from independent claim 24 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to independent claim 33, the claim recites providing a *plurality of storage devices* of a data management system configured to *store data for a plurality of protected computer systems, and wherein the storage devices are external of the protected computer systems*. The Office relies upon the teachings of Fig. 1 of Wahl as teaching the above-recited limitations. Applicants have failed to uncover any teachings in Fig. 1 of the claimed *protected computer systems* or that the *storage devices are external of the protected computer systems* as positively claimed.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

Claim 33 further recites *monitoring capacities of the storage devices using*

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storage control circuitry. Applicants have failed to uncover any teachings in col. 3, lines 24-37 of Wahl of the claimed limitations of monitoring capacities.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

Claim 33 recites providing a new storage device configured to store data for at least one of the protected computer systems. Applicants have failed to uncover any teachings in the server fail-over computer system of col. 23 or the generic teachings of col. 24 of Wahl of the claimed limitations regarding providing a new storage device.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

Claim 33 recites coupling processing circuitry of the new storage device with the storage control circuitry. The Office relies upon the teachings of Fig. 5 of Wahl in support of the rejection. Applicants have failed to uncover any reference in Fig. 5 to a new storage device or coupling processing circuitry of the new storage device with the storage control circuitry which also is claimed as *monitoring the capacities of the storage devices* as recited above.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

The claims which depend from independent claim 33 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 43, the claim recites a plurality of protected computer systems individually comprising processing circuitry configured to process data and storage circuitry configured to store the data. Applicants have failed to uncover any teachings in Wahl of the above-recited limitations and the Office has failed to identify teachings relied upon as allegedly teaching the above-recited limitations.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

Claim 43 also recites, in addition to the protected computer systems, *a data management system comprising a data storage system configured to store the data of the protected computer systems, wherein the data storage system comprises a*

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*plurality of storage devices individually having a respective capacity, and a quantity of the data of the protected computer systems to be stored by the data management system exceeds capacities of individual ones of the storage devices.*

Applicants have failed to uncover any teachings in Wahl including col. 3, lines 24-54 regarding the limitations of the capacities of the storage devices or that a quantity of data of the protected computer systems exceeds capacities of individual ones of the storage devices as claimed.

Applicants respectfully submit that positively-recited limitations of the claims are not disclosed by Wahl and the 102 rejection is improper for at least this reason.

Independent claim 43 additionally recites that the data management system comprises *storage control circuitry coupled with the data storage system and configured to assign individual ones of the individual storage devices to store data for respective ones of the protected computer systems.* The teachings in col. 3, lines 24-54 of Wahl refer to a writelog being configured so that more memory space is dynamically assigned to the writing device to provide a memory overflow condition. Writelog devices are components of the primary computer system 12 which provides primary application and data storage services to a user and Applicants have failed to uncover any teachings in Wahl including the teachings of the writelog devices of Wahl with respect to protected computer systems or the specifically claimed limitations of the storage control circuitry configured to *assign individual ones of the individual storage devices to store data for respective ones of the protected computer systems* as positively claimed.

Applicants respectfully submit that the above-mentioned positively recited limitations of the claims are not disclosed in Wahl and the 102 rejection is improper for at least this reason.

The claims which depend from independent claim 43 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Applicants submit an Information Disclosure Statement herewith.

Applicants respectfully request allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is

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available for telephone consultation at any time during normal business hours  
(Pacific Time Zone).

Respectfully submitted,

Stephen Gold et al.

By:

  
James D. Shaurette

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